

Battling brain drain

East and Central Africa needs more sustained and relevant research to succeed in agriculture

Polymakers in East and Central Africa face major hurdles as they try to create sound agricultural policies to fuel economic growth. Their need for good quality research is clear. But frayed lines of communication and the frequent departure of researchers mean project results sometimes don't reach officials who could use them.

The road to a better future for East and Central Africa (ECA) runs through its member countries' rural heartlands, where enhanced food production provides the best hope for alleviating domestic poverty and providing much needed export income.

Although in the recent past, several nations in the area have set ambitious plans for industrialization, "agriculture remains the most dominant sector in almost all the economies" of the region, explains Chris Akello-Ogutu, researcher with the Resource Management and Policy Analysis Institute (REMPAI), based in Nairobi, Kenya. This central role means that agriculture is key to achieving the economic gains upon which food security, poverty reduction, and social stability depend.

Warns Akello-Ogutu: "Neglect of the sector in terms of national economic development strategies and in terms of coherent policy direction will lead not only to a weakening of agricultural institutions... but also to a decline of economic growth."

The crucial role of research

This places significant weight on the shoulders of the ECA's research community, which possesses the tools – and, potentially, the knowledge – to enable the region's policymakers to wade through the complexities and arrive at workable plans for improving rural livelihoods.

This responsibility is especially onerous given the multiple challenges facing ECA's agricultural sector:

- ❑ In the area of **markets**, recent trade reforms have increased farmers' risk while not yet providing promised access to external markets. The region's producers depend on a narrow range of low-value commodities, and have historically been hurt by price fluctuations and an over-reliance on rainfall for successful harvests. Now, under liberalization of domestic markets, they've become more dependent on agents – some of whom may take advantage of them. Meanwhile, implementation of new trading regimes promising open markets across eastern and southern Africa has been stalled, while access to developed-country marketplaces remains limited.
- ❑ Agricultural **productivity** remains low. This is due partly to low levels of **innovation**. There's a pressing need for new technologies (seeds, fertilizers, etc.) and new methods of dealing with constraints like water shortages. New institutional models (co-ops, marketing and extension services, etc.) are required to enable farmers to improve practices. Alternative models of **agricultural finance** would also offset the limitations of commercial banks and public lending institutions.
- ❑ Upgraded **infrastructure** such as rail and road networks, storage facilities, electric power, and telecommunications would also boost productivity. Finally, higher levels of productivity also hinge on **sustainability**. Sometimes, resources have been degraded to the point where they cannot sustain livelihoods. The need for new resource-sharing mechanisms is illustrated by the situation in Kenya, where the traditional formula for land division has reduced the size of holdings below the point where farming is viable.



- ❑ **Civil strife and government failures** have diminished productivity, disrupted trading opportunities, created costly flows of refugees, and channeled aid money toward disaster relief and away from long-term development initiatives.

Leaks in the research pipeline

Given these and other stresses, policymakers at all levels need sound research to help them navigate through the maze of technological, economic, ecological, and social factors facing ECA's agricultural sector. But the links between researchers, policymakers, and farmers are fragile.

"We lament the high number of technologies that lie in the shelves un-adopted by farmers," writes Ackello-Ogutu. "Similarly, adoption of recommendations coming out of agricultural policy analysis by researchers ... remains at levels that are not acceptable."

How can this picture be improved? To generate potential solutions, Ackello-Ogutu conducted a multipart evaluation.

One part examined six sample IDRC-funded projects in three countries (Kenya, Uganda, and Tanzania), hosted by the Eastern and Central Africa Program for Agricultural Policy Analysis (ECAPAPA). Those projects' policy-related outcomes were measured against stated goals and the requirements of governments and communities.

Then, "key informants" analyzed the project experiences as well as general trends on the ECA research landscape. They drew out themes affecting relationships between research and policy.

The sample projects were divided into two groups. Projects in the first group were geared to assessing the viability of specific agricultural technologies. These sketches provide the details:

The role of technology in poverty alleviation: Determination of farm household financial profitability in bean production in Kenya. The researchers highlighted a number of means for dealing with farmers' low yields and with bottlenecks in the bean marketing system. The remedies included providing farmers with information on fertilizer and certified seeds, arranging seed-sharing arrangements among farmers, and improving marketing. All team members left the project before the dissemination stage, so the project's final report did not reach government agencies and was not acted upon.

Farm household profitability of Irish potatoes in Uganda. The project focused on the high cost of improved quality seeds. A series of recommendations outlined the need for cooperation between government agencies and the private sector, particularly in relation to the promotion of more and better seeds. These conclusions were disseminated in a workshop attended by legislators, NGO representatives, farmers, seed producer associations, and researchers. Influence over policy was exerted at several levels. For example, private industry agreed to take part in new collaborations, and the government – on the basis of research produced by the project – selected potatoes as a strategic export crop.

Farm household financial profitability of maize/beans intercropping technological packages: A case study of northern Tanzania.

One goal of this project was to inform policymakers and other stakeholders about the profitability of different patterns of intercropping using different inputs. Two workshops disseminated information to farmers, NGO representatives, and others, but did not include policymakers. Ackello-Ogutu found it difficult to discuss the results of the project since none of the researchers (including the team leader) wanted to take ownership of the project report. Although collaborators said the recommended agricultural technologies have been adopted, discussions with farmers contradicted this claim.

Countering conflict

The final three projects in the case study dealt with conflicts involving natural resource management issues. Those projects were:

Minimizing conflicts in natural resource management and use: The role of social capital and local policies in Kabale, Uganda. This project was an extension of other initiatives in Kabale aiming to support newly decentralized local governments and build other forms of social capital to diffuse conflicts over resource use. Although the project had not ended by the time of the evaluation, project researchers report that findings were being implemented as the project progressed. (A lack of progress reports, however, made that difficult to substantiate). The participatory, community-based approach involved and informed community members through focus groups, interviews, workshops, and meetings. Additional dissemination was accomplished through email, publications, and reports. The evaluator notes that one weakness of this project



(like others) is its lack of a focused definition of the level and type of policy engagement it strove for.

Pasture and water use conflict between Karamoja (Uganda) and the neighbouring districts: Impacts and potential conflict minimization strategies.

Chris Ackello-Ogututu describes Karamoja as “a region of constant social hardship, droughts, famine, livestock epidemics and general insecurity.” A local preference for cattle has led to overgrazing. Modern weapons are now entering the area, and conflict has intensified. Using participatory methods, the project sought conflict minimization strategies and suggested natural resource management solutions. One conclusion is that an attempt by the central government to enforce disarmament of combatants would only worsen conflict; what is needed is local level resolution brokered by third parties such as NGOs, and common property regimes as a means of resource allocation. Due to deteriorating security, the intended dissemination workshops have not taken place.

Conflicts in access and use of water resources in the Tana River Basin, Kenya. Competition for water (for horticulture, food production, and hydro-electricity) is a major concern in the Tana River Basin. The project produced policy briefs that outline the nature of those conflicts, examining the potential for a regime of plural water rights and summarizing users’ views of tradable water rights. Those briefs are intended to inform government’s new policies on the water issue. With the project not yet completed, key collaborators either emigrated or took on other work within Kenya. Despite this, researchers said they made plans for a future dissemination workshop in Nairobi.

Seeing the trends and opportunities

Examining the sample projects – and also surveying broader trends in the ECA region – a panel of “key informants” identified some important themes affecting the relationships between research and policy.

First, they suggested that donor organizations’ more direct role in supporting and helping to shape research projects in the region may have created a disconnect between policymakers and researchers. As regional governments have withdrawn funding from research institutions, international agencies have taken up the slack, creating closer links between donors and ECA institutions while possibly removing policymakers

from the equation. This increasing donor influence may be framing research questions in ways that governments – which are hard pressed to deal with the immediate demands of poverty reduction, HIV/AIDS, and new global trading arrangements – may perceive as out of line with their own priorities.

Putting researchers and policymakers into direct contact at the design stage would not only ensure that policy concerns are factored into research design, but might also help overcome an apparent mistrust between the research community and government.

One consistent problem is the glaring absence of gender considerations in any of the projects, despite gender being a critical issue in agricultural policy. This may be symptomatic of wider, systemic problems. Capacity may be one contributing factor, with economists and others who undertake agricultural research in the region lacking training to approach gender issues. Other daunting problems facing Africa may also cause policymakers to see gender as secondary and to subsequently “put it on the backburner.”

The effects of “brain drain” were apparent in many of the sample projects. As researchers move out of institutions in search of employment, the stability of research projects suffers, particularly at the latter stages (at which dissemination should take place) when most project staff may have migrated to other roles.

Financial considerations also factor into the stability of the research community. Individual projects generally receive a low level of funding, creating an incentive for researchers to quickly move on to other work when opportunities arise. Overall, there was a feeling that funding is divided among too many projects, a practice that also limits the scope of research and diminishes its appeal to policymakers. Modestly-funded research often can only deal with smaller problems with a geographically limited impact, “thus making it difficult to come up with the generalizations that capture the big picture that a policymaker usually needs,” writes Ackello-Ogututu.

Timely delivery of research results is also key to affecting the policymaking process. In this regard, the informants pointed out that ECAPAPA needs the increased institutional capacity and specific policies in place to enable it to set benchmarks and accelerate the completion of time-sensitive research.



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Some lessons

- ❑ Steps need to be taken to counteract the “brain drain” that often damages prospects for disseminating research results.
- ❑ Funding bigger research projects rather than a wide range of low-funded projects may better capture the “big picture” that policymakers need to see.
- ❑ Increased institutional capacity is needed to generate research results more quickly.
- ❑ Involving policymakers in the design of research projects may lead to more policy-relevant research.

The International Development Research Centre (IDRC) is a Canadian public corporation, created to help developing countries find solutions to the social, economic, and natural resource problems they face. Support is directed to building an indigenous research capacity. Because influencing the policy process is an important aspect of IDRC’s work, in 2001 the Evaluation Unit launched a strategic evaluation of more than 60 projects in some 20 countries to examine whether and how the research it supports influences public policy and decision-making. The evaluation design and studies can be found at: www.idrc.ca/evaluation_policy